Default disambiguation for online parsers Experiment

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This artefact provides scripts to reproduce the results from the evaluation section of the paper. Reviewers may run the experiment using the same setup as used in the paper using the VirtualBox image (Section 1.1); run the experiment on their own machine (Section 1.2); only run a subset of the experiment (Section 1.3); or only generate the tables using pre-built results from the paper (Section 1.4).
Username and password for the virtual machine: **user** / **user**

1 Running the experiment

1.1 Quickstart

Runtime: ∼7-12 hours
To run the experiment execute `./build_paper.sh` (located in `~/experiment/`). This will run all benchmarks and should take approximately 3-4 hours on a machine with an i7 and PyPy installed (the use of CPython and/or VirtualBox will likely increase this runtime). After the benchmarks have finished running, the results will automatically be analysed, and latex tables will be generated in `latex/`. The produced tables correspond to the paper as follows:

- Table 1: `tbl_valid.tex`
- Table 2: `tbl_breakdown.tex`
- Table 3: `tbl_bench_all.tex`
- Table 4: `tbl_bench_hist.tex`
- Table 5: `tbl_bench_stack.tex`
- Table 6: `tbl_bench_line.tex`

1.2 Running without the VM

Runtime: ∼7-12 hours
Reviewers may alternatively clone the experiment repository from `https://github.com/softdevteam/auto_lbox_experiments` and run it on their own machine. Note however, that the repository does not contain the files necessary to run the experiment in the exact setup of the paper and since the tests are randomised results may differ slightly from the paper.

1.3 Running a subset

Runtime: ∼2-4 hour
Reviewers may run a subset of the benchmark suite with `./build_subset.sh`, which reduces the total runtime of the experiment. Note that in this case the results will likely differ a lot from the paper.

1.4 Produce tables using prebuilt data

Runtime: ∼1-2 seconds
Reviewers who only want to reproduce the tables without running the benchmarks themselves can run `./build_tables.sh`. This will use the benchmark results from the paper (which come packaged with this VM) to generate the latex tables.

2 Using the editor

To see automatic language boxes in action, reviewers may run the editor Eco and try out some of the compositions. Eco can be started either by using the link on the desktop or executing `cd eco; ./bin/eco` in a terminal. Reviewers may then open any of the examples in `∼/eco_examples` (which correspond to Figures 1, 7, and 8 in the paper) and follow the instructions in the comments.